NEHRU
BAL PUSTAKALAYA

The Story of Our Rivers

(Part II)





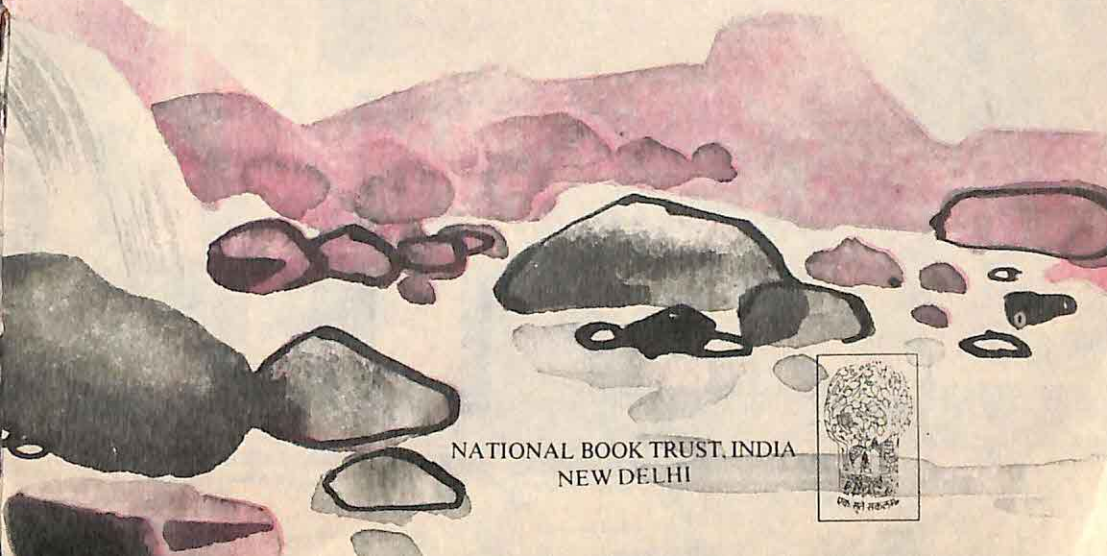
NEHRU BAL PUSTAKALAYA—29

The Story of Our Rivers

(Part II)

AL. VALLIAPPA

Illustrated by
PRANAB CHAKRAVARTY



NATIONAL BOOK TRUST, INDIA
NEW DELHI

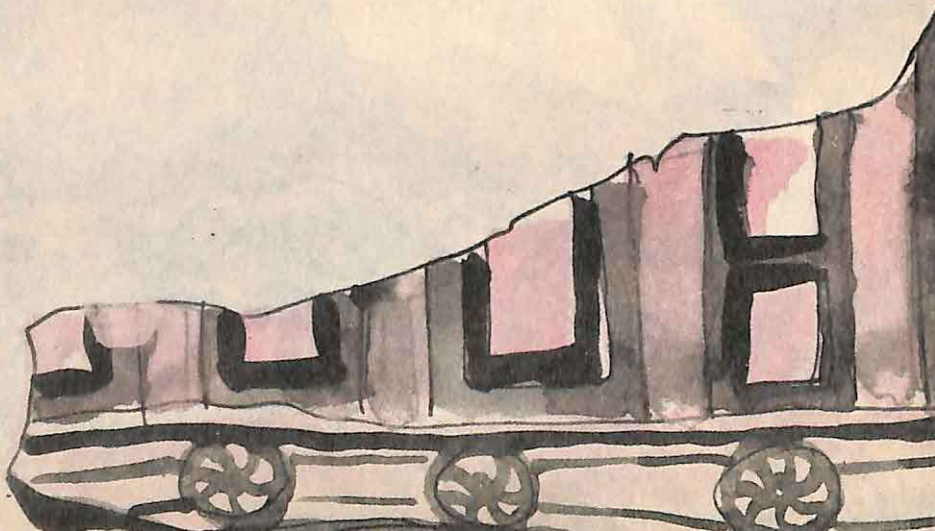
First Edition, 1973 (*Saka* 1894)
Second Edition, 1984 (*Saka* 1906)
Third Edition 1988 (Saka 1910)

© *Al. Valliappa, 1973*

National Book Trust, India
REVISED PRICE Rs.5.00

ACC NO - 15592

Published by Director, National Book Trust, India
A-5, Green Park, New Delhi 110016
and Printed at Jugnu Offset, 1/11828 Panchsheel Garden Navin Shahdara Delhi-110032.





Srirangam Temple



There is one important difference between the rivers of north India and the rivers of south India. The rivers of the north are perennial, that is, they flow throughout the year. They are fed not only by the monsoon rains but also by the snows of the Himalayas.

The rivers of the south have no snow to feed them. The major rivers are created and fed by the rains of two monsoons, the south-west and the north-east. Most of the southern rivers are full during and after the rainy season but as the dry season approaches, they dwindle to narrow streams. In the summer, children can be seen playing in the dry sandy beds of the smaller rivers of the south.

But, in all other respects, especially in the part they play in the everyday life of the people, there is no difference at all between the rivers of the north and those of the south. There are as many legends about them, they are worshipped, sung about and sung to in the same way; they serve as inland waterways for taking goods from one place to another; engineers have dammed them to store their waters for irrigation and to produce electricity.

Most of the people of India are employed in agriculture or in trades and industries connected with it. For agri-

culture we need plenty of water. The livelihood of millions of people, therefore, depends on rivers which supply water.

So, you see, up and down the country, whether it starts from the snowy Himalayas or from some hilltop in the south drenched by monsoon rain, the river is very precious to all of us. Why to us alone? From early times, all over the world, man has always depended on the river which has served him in many ways.

In olden days, the river protected people from invaders. Even in modern times, it often serves as the boundary of a state or a region. The earliest civilisations—Aryan, Egyptian, Babylonian, Assyrian—were established on the banks of rivers.



THE KAVERI

The river Kaveri flows through the State of Karnataka and Tamil Nadu. Its source is a spring in the Brahmagiri mountains in Karnataka at a height of 1320 metres above sea level. These mountains which are part of the Western Ghats are in the area known as Coorg. Have you heard of Coorg? It is a lovely, mountainous part of the present Karnataka State. The men of Coorg are like the Rajputs—sturdy, fearless and warrior-like.

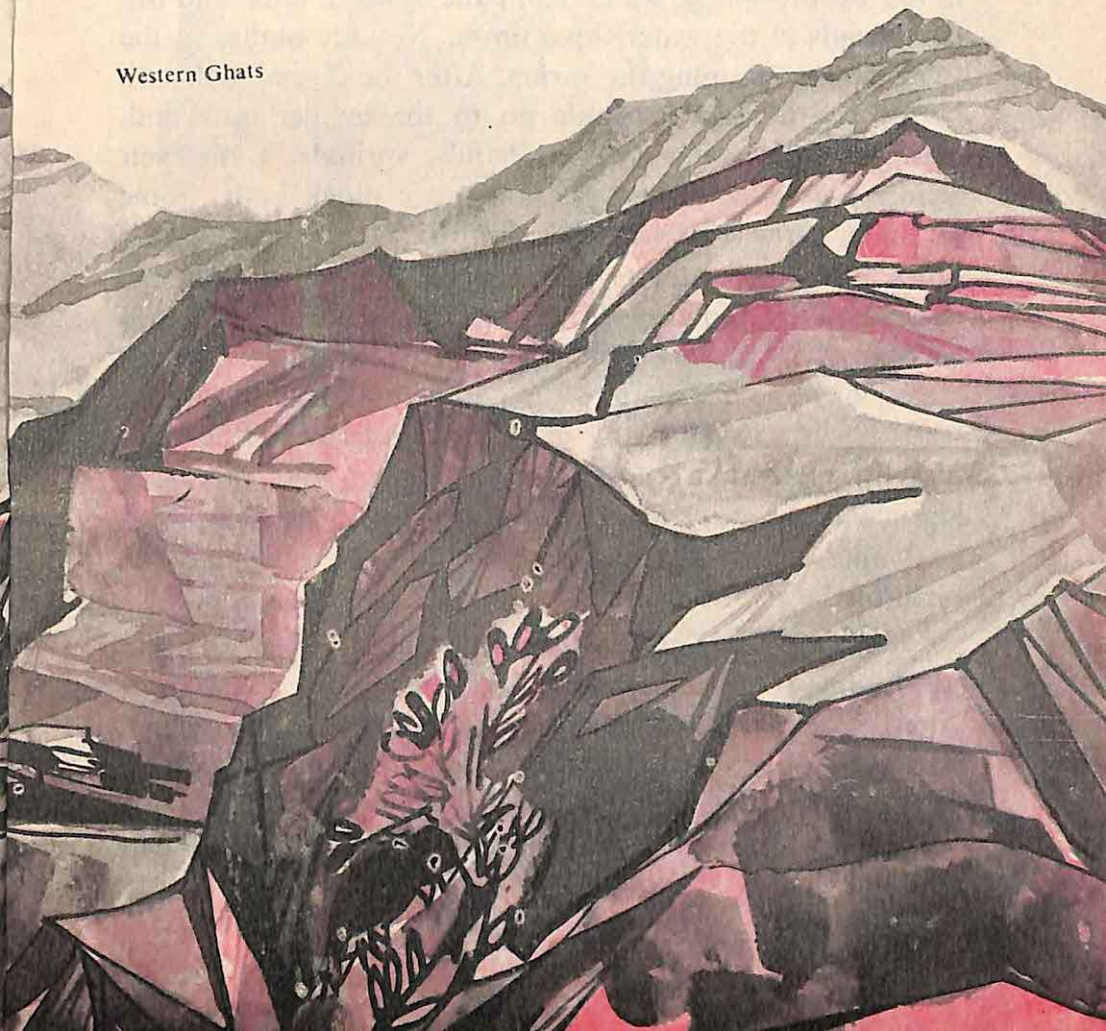
The birth of a river, like the birth of a baby, is a happy event which calls for a celebration. So on a particular day every year (*Sankramana* according to the Hindu calendar) people go up the Brahmagiri to watch the source spring of the Kaveri gush up in the middle of a small tank. Even in the olden days when the road stopped five kilometres short of the spring and wild beasts were known to wander about, people used to walk up a footpath to see the annual birth of the Kaveri in October. The spring, of course, is the main attraction. But, closely competing with it, is the breath-taking beauty of nature all along the route.

At a certain point on the ascending road there is a stone from which you can see the top of the mountain. It is said Tipu Sultan, one of the rulers of Mysore in the 18th

century, returning from his invasion of Coorg, stopped on the way to rest. Standing on a rock, he looked up at



the mountain and was rewarded by a glimpse of the gushing spring near the top. So thrilled was he by this sight that



Western Ghats

he instinctively bowed his head in salutation to the gracious presence of the river. The rock has since been known as the Salutation Stone.

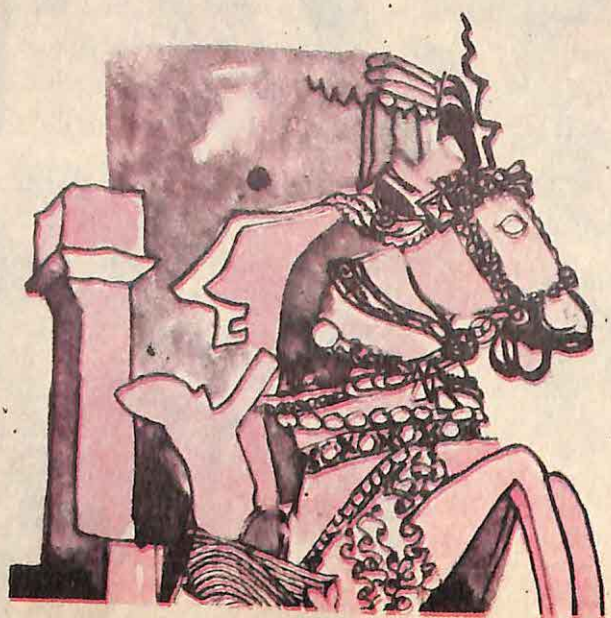
As the outflow of water from the spring of the Kaveri collects in the small tank, the people who come to watch shout with joyous excitement and rush towards a bigger tank situated nearby. They get into this tank which is fed by the spring water from the smaller tank and dip their heads in the water three times. Nobody bathes in the small tank containing the spring. After the ceremonial bath in the big tank, the people go to the smaller tank and, taking a little water in their hands, sprinkle it on their heads. This is considered as good as a quick bath. Some of them carry away small quantities home in bamboo tubes. Like the water of the Ganges, the water from the river Kaveri remains fresh for many days. This is generally true of all flowing rivers in which dirt and waste matter have no chance to settle and contaminate the water.

Not surprisingly many girls are named after the river both in Karnataka and in Tamil Nadu. And there are legends about every bend in the river and every temple on its banks. One of them is about Sage Agastya and the birth of the river Kaveri.

It is said that Kaveri was a beautiful girl given as a gift by Brahma to a childless king named Kaveran. Later, Sage Agastya fell in love with her and wanted to marry her. Kaveri's father agreed but on condition that the sage would never leave his wife alone. Agastya gave his word, the marriage took place and the couple settled down happily



in a hermitage. Sage Agastya kept his promise for a long time, but one day he began teaching his disciples a difficult lesson in philosophy. The lesson went on and on and the sage did not return home at the usual time. Kaveri who had been waiting anxiously for him thought that something terrible had happened to him. She did not wish to live without him and wanted to kill herself. Before anyone could stop her, she jumped into the tank in which her husband had his daily bath. But she did not die. She sank to the bottom and disappeared underground. She became a river and slowly flowed up the Brahmagiri mountain and near its top she reappeared as a spring. Sage Agastya who had been searching high and low for his wife, found himself at the top of the mountain one day. There he recognised his wife in the spring and begged her to return home. After much persuasion, Kaveri agreed to do so but only as half of herself. "From now on," she said,



"half of me will live in the hermitage as your wife and the other half will enrich Mother Earth as the river Kaveri." Her promise to the people of Coorg was that she would reappear every year at the very spot where she had risen as a spring. That promise, the people believe, she faithfully fulfils every year.

A river is more than a stretch of water. It is an active, living, moving force. It contains life—visible and invisible —and it can create and destroy life. The colour of a river changes according to the land it flows through, its size alters from time to time, even the taste of its water varies from place to place. Every river has a character of its own. Poets sense the moods of a river; engineers study them before building bridges and dams; boatmen and farmers are always wary of them.

The Kaveri too has a special character of its own. And it is not the same throughout its length of 765 kilometres. At one place it is Akhanda Kaveri, the Immense River swollen with tributaries. Just before it enters Tamil Nadu it is Megha Tadu or Adu Thandum Kaveri, the Kaveri-a-goat-can-jump-across. In the Brindavan Gardens in Mysore it is a soft gurgle of water tumbling down a flight of steps, and at Sivasamudram Falls it is a beautiful demon roaring down the mountain into a cluster of rainbows at the bottom. It is the sacred river at Srirangam and the creator of a home for birds at Srirangapatnam. It is the river which is so placid at some times of the year that even children dare to swim in it, and at other times, it hurls itself over its banks and runs wild over the fields destroying every-

thing in its way.

The Kaveri is also not one river. Like all big rivers it is many small rivers joined in one. As it nears Kaveripoompattinam where it flows into the Bay of Bengal, it is a thin, slender stream. This is the Kaveri grown old and tired from its long journey and ready for its well-deserved rest in the bosom of the father of all waters, the mighty sea. Born within sight of the Arabian Sea which can be seen from the top of the Brahmagiri mountain, the river flows in long, lovely curves towards the ocean on the eastern side of the Indian peninsula.

As the Kaveri, newly-born, flows down the Brahmagiri mountain and enters the plain, two small rivers, the Kanaka and the Gajoti, join it. At the meeting place of the three rivers stands the town of Bahamandalam which is as famous in the south as Prayag is in the north. But, even here, the Kaveri is still a small river. It is only when it leaves Coorg and two more rivers, the Hemavati and the Lakshmana Theertham, join it that it becomes a large river, broad and deep.

It is at this place that we have the Kannambadi dam, the first of the dozen dams that have been built across the Kaveri in Karnataka alone, to make its water available for cultivation throughout the year.

Before man learnt to build dams across rivers, in summer the farmer's land became dry, crops drooped, and seeds sown in the ground failed to grow because there was no moisture in the soil. But with the construction of reservoirs to store river water, farmers get a supply of water whenever they want and it has become possible for

two crops and even three to be sown in one year.

But damming a river is no easy job, though we may proudly claim that the oldest dam on the Kaveri called the Stone Anicut, was built as long as 1600 years ago. Or was it even 1800 years ago? Historians differ about this. There are retaining walls on either side of the Kaveri for a distance of 160 kilometres down its length which, it is definitely known, were built by Karikala, a Chola king who ruled towards the end of the first century A.D. Some historians hold that it was this same Karikala who built the Stone Anicut also. This ancient dam was planned and built in an age when engineering as we have now, was unknown. Made of stone and mud it has stood for centuries. Men have wondered how it was built. It was enlarged and reconstructed in the 19th century and re-named the Grand Anicut. The massive structure of the Grand Anicut is a prominent feature of the riverscape in Tamil Nadu.

A flood in a river can be deadly and destructive but if the people know in advance that it is coming and prepare for it, much of its destruction can be prevented. The Tamil people go a step further than merely taking precautions against floods in the Kaveri. They celebrate the flood in the river with a festival called the Flood of the Eighteenth. On the eighteenth day of the month of *Aadi* (July-August) people come in their thousands to offer worship to the river. They light special prosperity lamps and express their gratitude to the Kaveri by throwing offerings of sweetmeats, fruits and flowers in its waters. The people make this day a day of rejoicing, a picnic on the banks of

the Kaveri.

Do you know who built the Kannambadi dam on the Kaveri in Mysore? Let me tell you a story. One day, more than a hundred years ago, there was a Sanskrit class going on in a village school in Mysore. The teacher was telling his pupils about the next lesson in their book on the importance of good health. Suddenly, he stopped talking and pointing to a fair, thin boy, all eyes and hardly any face, who was drinking in the teacher's every word, said, "We are talking about good health. But look at Visvesvaran. He is young and should be strong but look how thin and skinny he is. If he goes on like this by thirty his life will be over."

But young Visvesvaran's life was not over by thirty. He grew up to be one of India's greatest industrial engineers and was awarded the Bharat Ratna, the highest honour that can be bestowed on an Indian citizen. And, what is more, he lived to see his 101st birthday celebrated by the whole nation. In India's roll of honour Sir M. Visvesvarayya's name stands very high.

He achieved so much in his long life-time that it is difficult to choose what to say about him and where to begin. He became the Dewan of Mysore (this was before independence when Mysore was a Princely State) and was responsible for setting up the Mysore University and the Mysore Bank, the Bhadravati Steel Plant and many other industrial enterprises.

It was Sir M. Visvesvarayya who designed the Kannambadi dam. This dam is built at a place just after the



Kaveri is joined by the Hemavati and Lakshmana Theertham. The waters of the three rivers are collected here in a huge lake or reservoir by a dam 40 metres high and 2600 metres long. The surface area of the water in the lake is 128 square kilometres. The dam which was begun in 1911 took 12 years to be completed. The reservoir which it created was named Krishnaraja Sagar after the

then king of Mysore.

On the banks of the Krishnaraja Sagar is laid out one of the most beautiful gardens in Karnataka called, aptly, Brindavan—the legendary garden and woodland in which Krishna played as child and boy. Brindavan combines the skill of man with the beauty of nature. Everything here captivates the visitor. The waters of the Kaveri ripple down the stone steps murmuring their song, clever lighting converts the garden into a fairyland at night, fountains cool the breeze with their soft spray, flowers in their colourful splendour, artistically sculptured bushes, and lawns which look and feel like silken carpets, all delight the senses. Once this region was malarial; people were afraid to come here. Today it is an internationally famous tourist spot. Nowadays every dam has a beautiful garden nearby. Brindavan was the pioneer which led the way.

The Kannambadi dam is the first and largest of the dams on the Kaveri in Karnataka. In Tamil Nadu also there are many dams. There are the three Anicuts—the Grand Anicut, the Upper Anicut and the Lower Anicut, the last one being not on the Kaveri itself but on its branch, the Kolrun, which is almost like a separate river. And there is the Mettur dam which connects the Seetha and Pala mountains through the valley of which the Kaveri flows long before it comes to the Grand Anicut. It was built 20 years before India became independent.

We have two big waterfalls in the course of the Kaveri, and a number of small ones. There is the Sivasamudram

waterfall in Karnataka which is one of the loveliest sights that the Kaveri has gifted to us. Here the waters of the Kaveri drop 90 metres down the cliff face to fall into a pool at the bottom which shimmers like molten silver, so white is the foam forming and breaking on the water. On this silver cloud fall the rays of the sun spilling rainbow colours all around. The sight is so enchanting that you can gaze at the falls by the hour and never grow tired.

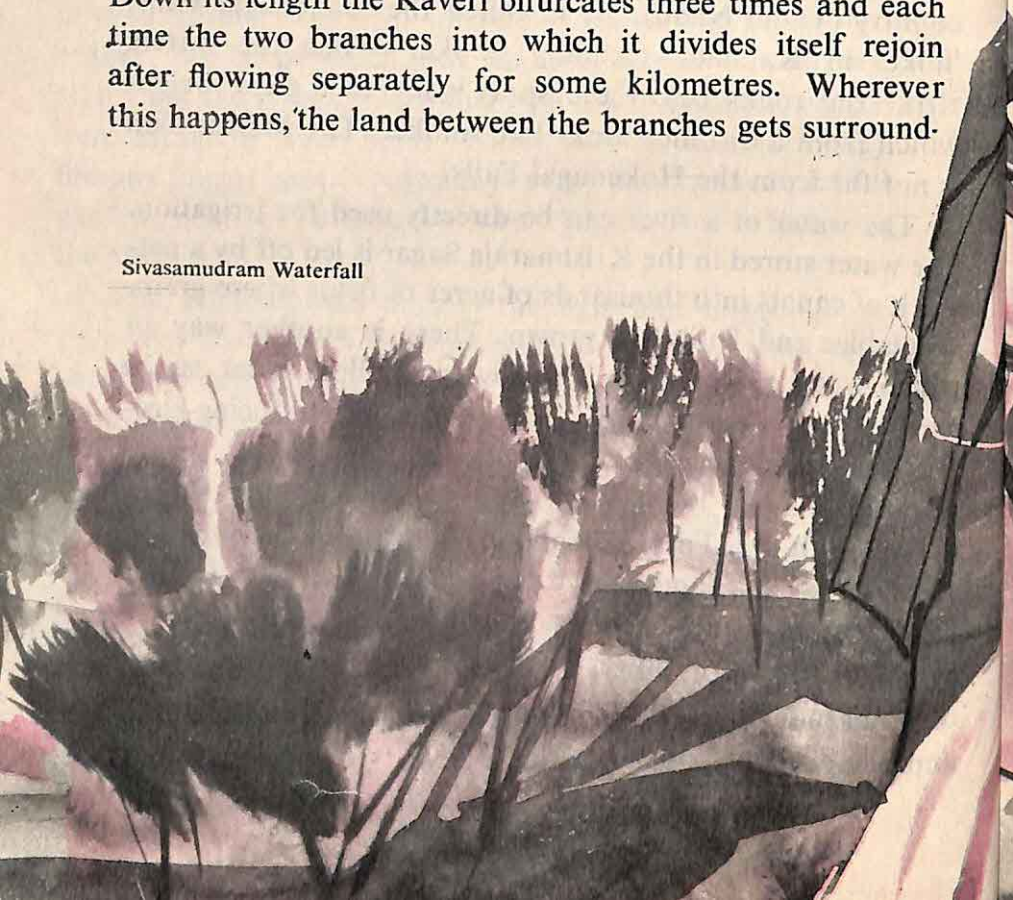
The second waterfall occurs just as the river leaves the Kannada country (Karnataka) and enters the Tamil country (Tamil Nadu). It is called the Hokenagal Falls, 'hoke' in Kannada meaning smoke. When the waters strike the rocks below the spray rises to a great height which from a distance looks like smoke. The Mettur dam is not far from the Hokenagal Falls.

The water of a river can be directly used for irrigation. The water stored in the Krishnaraja Sagar is led off by a network of canals into thousands of acres of fields where grain, vegetables and fruits are grown. There is another way in which water can be used. The power of falling water can be used to produce electricity. This process of producing electricity is called a hydro-electric project. The Sivasamudram waterfall formed by the two rivers into which the Kaveri divides itself—the Parasukhi and the Gaganasukhi—thunders down a cliff face, and is used to produce electricity. In fact, the Sivasamudram is the first hydro-electric project built in India. The electric power produced here has brought light to thousands of small villages in Karnataka. It works mills and factories all over the State. It is the electricity of

Sivasamudram which runs the machinery in the Kolar Gold Fields and the Bhadravati Steel Plant, and a number of sugar factories and cotton and silk mills.

The reservoir at Mettur is used in two ways. Part of the water is channelled off for irrigation as in the case of the Krishnaraja Sagar. Another part is used to produce electricity as at Sivasamudram. The Hokenagal Falls, on the other hand, is just a beautiful waterfall—a free gift of beauty to the spectator.

We have seen how the Kaveri, as it flows along, is sometimes joined by other rivers, and sometimes splits in two. Down its length the Kaveri bifurcates three times and each time the two branches into which it divides itself rejoin after flowing separately for some kilometres. Wherever this happens, the land between the branches gets surround-



Sivasamudram Waterfall

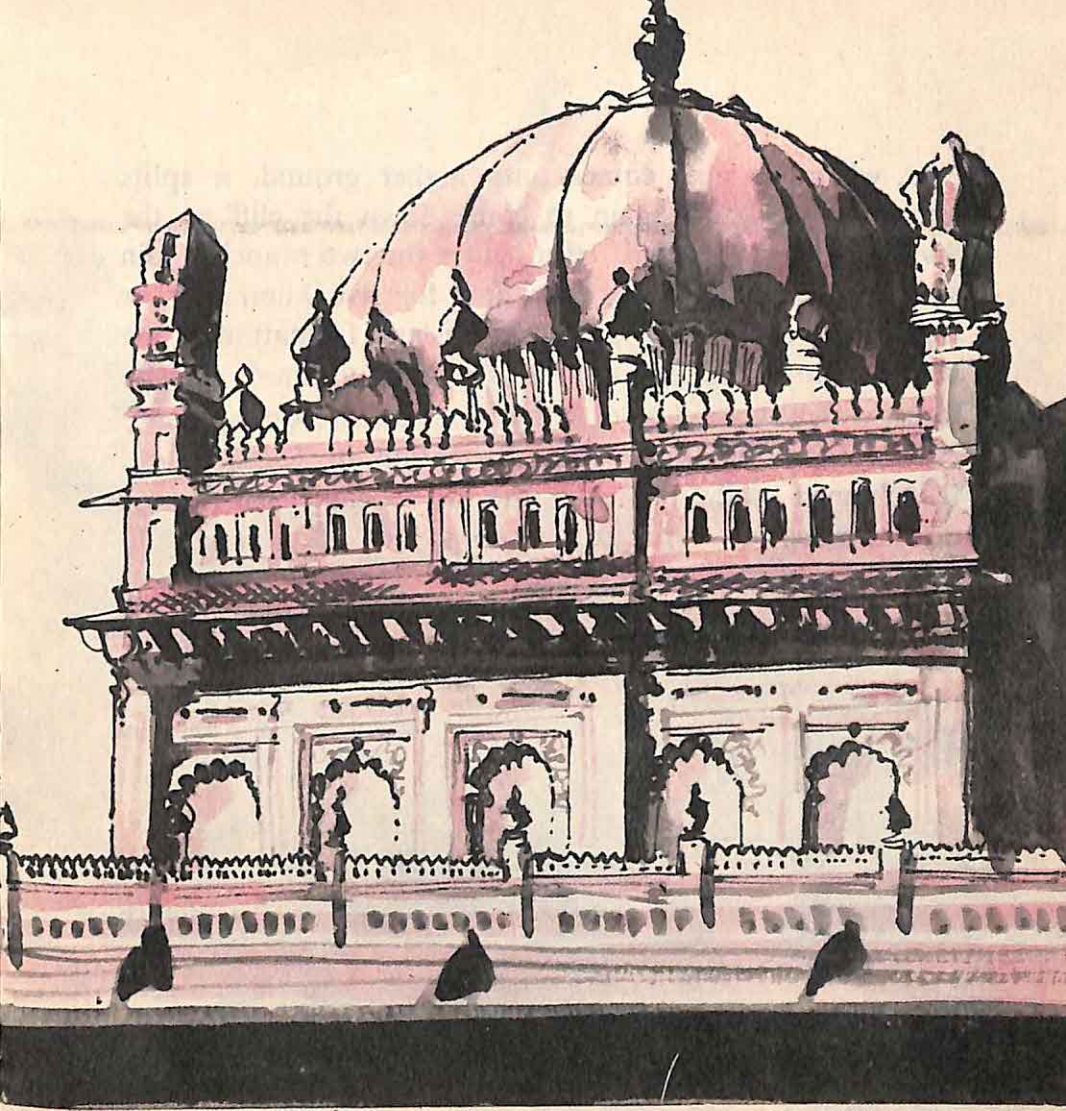

15592

ed by water, and forms a kind of island.

The first of these island formations occurs in the Kaveri in Karnataka State when the river bifurcates into two branches which flow separately for 13 kilometres and then rejoin each other to form a single river again. On this island formation stands the famous city of Srirangapatnam, once the capital city of the kings of Mysore. Here was fought the historic battle between Tipu Sultan and the English in which Tipu lost his life. Some kilometres from the town is a famous bird sanctuary which attracts bird lovers from all over the country. A large variety of birds including many kinds of storks fly in during the month of June and nest here in July and August.



A Painting in Tipu's Palace

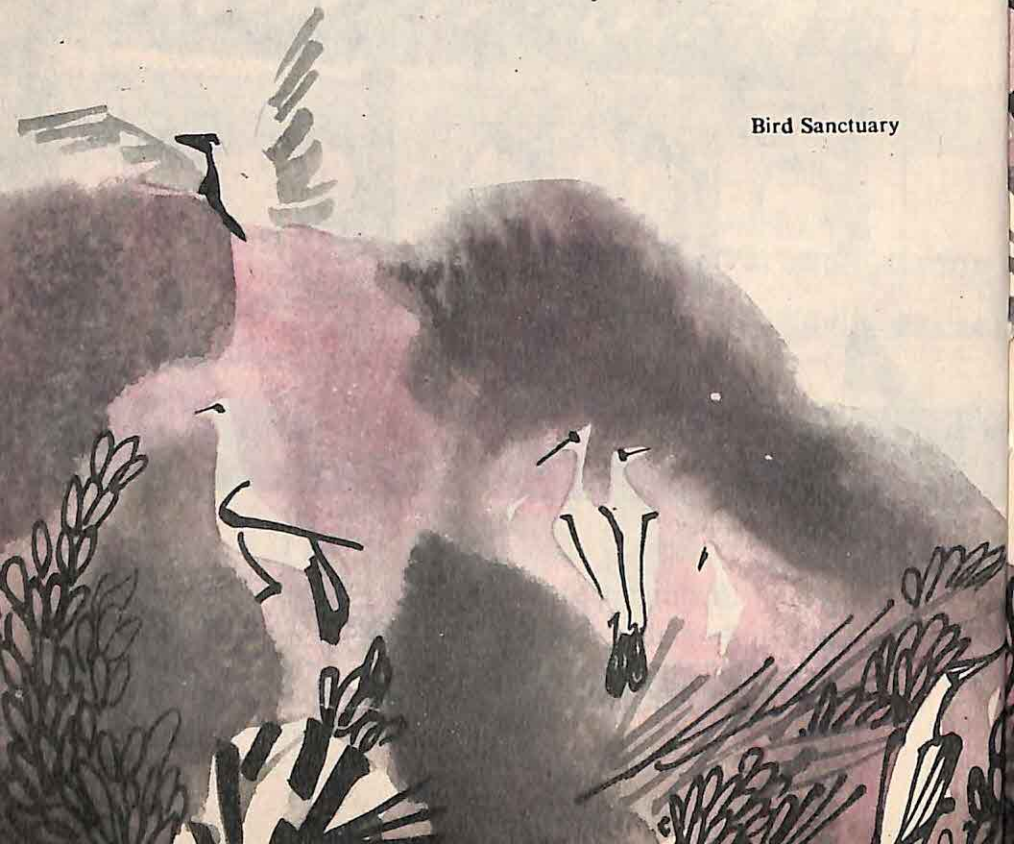


Tipu's Tomb

When Srirangapatnam is left behind, a number of streams and small rivers join the Kaveri swelling its waters and making it broad and powerful. After a while, how-

ever, when the river comes onto higher ground, it splits into two and joins again to come down the cliff as the Sivasamudram waterfall. But before the two branches join and become a waterfall, they flow for five kilometres as separate rivers creating the second island formation in the Kaveri named Sivasamudram. Sivasamudram is mostly forest with abundant wildlife and some picturesque scenery.

We have the third island formation in Tamil Nadu. It is formed by the branch of the Kaveri called the Kolrun flowing away as a separate river for some 43 kilometres and then rejoining the main river. On this island is the famous



Bird Sanctuary



pilgrim centre, Srirangam.

There are many pilgrim centres and temples on the banks of the Kaveri. These are no doubt holy and sacred but it is the river itself which is most important to the people of Karnataka and Tamil Nadu. The benefits of the Kaveri can be seen in the lush green fields on its banks mile after mile, the plantations of banana and sugarcane and the majestic avenues of trees. The waters of the Kaveri have transformed the countryside in Karnataka and turned the Tanjore district of Tamil Nadu into the granary of the south. It is a popular saying in Tamil that every grain of earth in the district of Tanjore is worth its weight in gold —thanks to the Kaveri.

The Kaveri has left its stamp on the towns which have grown on its banks. And every town has its quota of legends and stories to tell about the river. It is impossible to mention all of them—one could write a book on the many river festivals alone. We will briefly mention two of them. One is Kumbakonam, a town in the heart of the Tamil country which celebrates, once in 12 years, a festival called the Mahamakham which is as famous as the Kumbha mela at the Triveni Sangam in the north. On the day of Mahamakham, pilgrims and visitors come in their thousands to Kumbakonam to have a bath in a tank in the town and then a dip in the Kaveri.

Another town is Mayuram, a beautiful town almost at the end of the course of the river. Mayuram is famous for its lovely peacocks which live among the green fields and shady groves of this region. They add a touch of



brilliance to the beauty of nature. The people also call this place Mayiladuthurai or Riverside of Dancing Peacocks.

No account of the Kaveri can be complete without a mention of the town of Thiruvayyaru. This town stands where four tributaries join the main Kaveri river. The deity in the temple here is in fact called Ayyarappan meaning Lord of the Five Rivers. But the fame of Thiruvayyaru rests mainly on its being the birth-place of Tyagaraja, the famous saint-composer of Karnatak music.

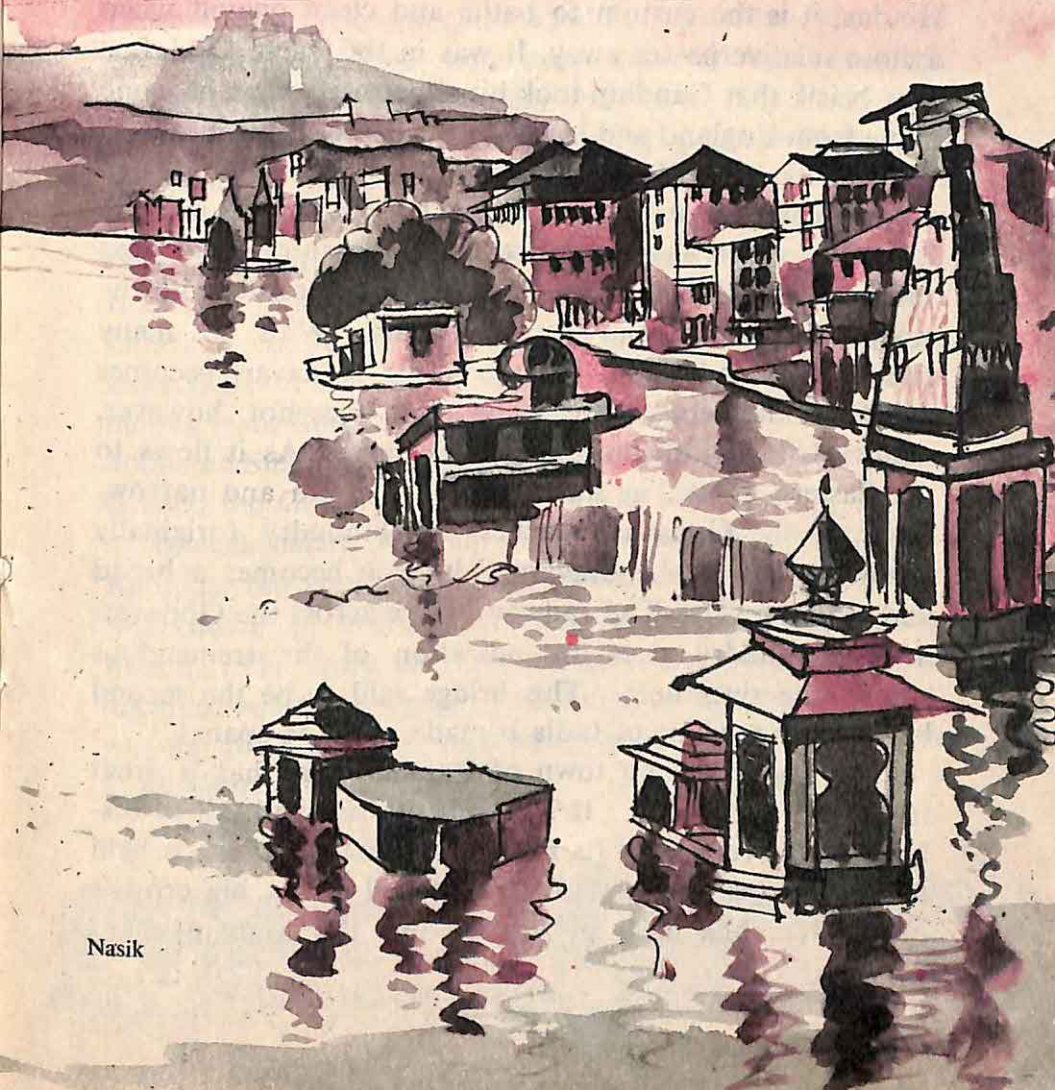
THE GODAVARI

Most of the rivers of the south flow from west to east. They are born in the ranges of the Western Ghats and flow towards the Bay of Bengal. The Kaveri is born in the Brahmagiri range of the Ghats. The Godavari, the longest of the east-flowing rivers of the south, has its source spring further north in the Ghats. Like the Kaveri, the Godavari which is almost twice its length is born within sight of the Arabian Sea and flows east into the Bay of Bengal.

The Godavari is popularly referred to as Dakshina Ganga or the Southern Ganges and is considered one of the sacred rivers of India because it is associated with the story of the *Ramayana.* Every bend in the river, every crag and boulder has its tale to tell of the part it played, however small, in the great story of King Rama. Innumerable towns, woods and villages on its banks claim that Rama, his brother Lakshmana, and his wife Sita either passed through or lived here for a time.

Take Panchavati for example. It is a place near Nasik. People believe that this is the same Panchavati mentioned in Valmiki's *Ramayana* where Rama stayed with Lakshmana and Sita for a while after leaving Ayodhya.

It was at this place, they believe, that Lakshmana cut off the nose of Surpanakha, the sister of King Ravana of Lanka. She had come to have a glimpse of Rama, the handsome heir-apparent of Ayodhya, and had fallen in love with him. The story goes that she was so bold in her advances that



Nasik

Lakshmana angered beyond control cut off her nose as punishment.

It was here in the Godavari that Rama and Lakshmana are supposed to have taken their ritual bath on hearing of the death of their father, King Dasaratha. Among the Hindus, it is the custom to bathe and clean oneself when a close relative passes away. It was in this same Godavari near Nasik that Gandhiji took his ritual bath when he came home from England and learnt of the death of his mother.

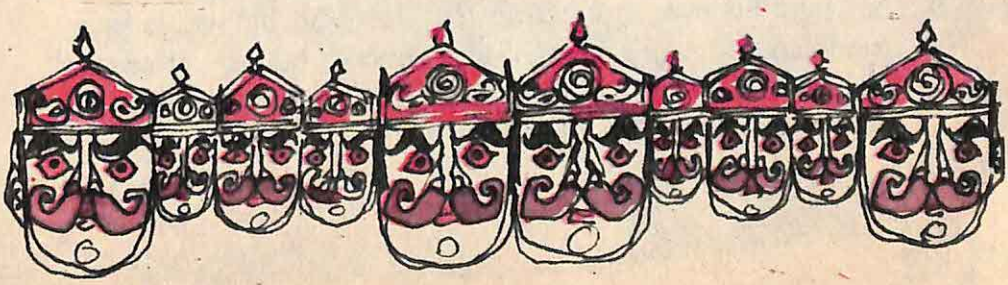
Just like the Kaveri, the Godavari goes on collecting tributaries as it flows along. The first to join it is the Pranahita which has its source in Maharashtra. Later, the Indravati and the Sabari (another name associated with the story of Rama) join the Godavari. With so many rivers, large and small, joining it, the Godavari becomes full four kilometres wide. The river does not, however, maintain this width throughout its course. As it flows to the Eastern Ghats, in some places it is thin and narrow. Then, as the Godavari reaches Rajahmundry (originally known as Rajamahendravaram) it again becomes a broad and mighty river. The railway bridge across the Godavari at Rajahmundry gives an indication of the tremendous size of the river here. This bridge said to be the second largest in the whole of India is made up of 56 spans!

The big sprawling town of Rajahmundry has a great tradition and history. It has seen the rise and fall of distinguished dynasties. Its Pushkaram festival which is held once in 12 years is as famous and collects as big crowds as the Kumbha mela of Prayag and the Mahamakham

of Kumbakonam. The temples here on the banks of the Godavari dedicated to Markandeya and Kotilingesvara, an unusual choice of deities, have a special appeal to devotees. Rajahmundry has been the home of a long line of distinguished poets, essayists, novelists and dramatists. Nannaya, the famous classical poet of the 11th century and Veeresalingam Pantulu, the fore-runner of modern Telugu prose, were born and lived here. It is still an important centre of literary activity.

Before we reach Rajahmundry we pass another town associated with Rama which stands on the banks of the Godavari. This is Bhadrachalam. This town may be said to reflect the Godavari culture in all its many-sided richness. The temple to Rama which stands here on a hilltop is considered the foremost among Rama temples. Legend has it that it was from Parnasala, a place 30 kilometres from Bhadrachalam, that Ravana, King of Lanka, abducted Sita and it was here that Rama and Lakshmana crossed the Godavari on their way to Lanka.

Bhadrachalam is even more famous as the town of Ramdas, the great devotee of Rama, whose songs are as well-known all over the country as those of Kabir and Meera. The story of Ramdas is a true story. Ramdas does not belong to legend, he belongs to history. Ramdas was not his real name, his name was Gopanna and he was a *tahsildar*.



The story goes that an old woman of this town named Thimmakka dreamt one night of three idols in a forest on a hilltop. The dream was so vivid that in the morning she went to the hill accompanied by her daughter and, hacking her way through bushes and brambles, at last found the idols of Rama, Sita and Lakshmana exactly where she had seen them in her dream. With joy and devotion she cleared the place as well as she could and put a thatched roof over the idols to protect them from sun and rain. And every day the old woman climbed the hill to offer prayers at the shrine. Soon the people of the village began to talk about her and her mysterious visits to the hill. What was she up to, they wondered. When people asked her what on earth she did on the hill, she answered that she went to visit a temple every day—an answer which only made them laugh because the whole hill was covered with thick jungle. How could there be a temple there?

Soon the stories about Thimmakka and her gabbling about a temple reached the ears of the *tahsildar* Gopanna. He took the old woman's stories seriously enough to go up the hill and look for the shrine himself. And he found Thimmakka's temple where she had said it was—three idols under a thatched roof built in a clearing in the forest and kept spotlessly clean. As Gopanna gazed at those idols, a great change seemed to come over him. He could not take his eyes away from the idols and his whole being trembled with a joy he had never known before. It seemed to him that all his life had been but a journey towards this moment on the hilltop.

Gopanna settled down on the hill and built a stone temple for the idols. As he worshipped at this little temple, poetry and song poured from his lips and soon the people of Bhadrachalam were hacking their way through the forest to see Gopanna and his temple. They named him Bhadrachala Ramdas, a name familiar through

Bhadrachalam Temple



song and story to every person throughout the length and breadth of Andhra Pradesh.

The old village of Bhadrachalam has now grown into a popular town. Even the hilltop has changed. On the hill now stand 24 temples with the stone temple built by Ramdas housing the idols discovered by Thimmakka right in the middle of the cluster. To reach these temples, we have to cross the river Godavari in a motor boat and go through a forest.

Formerly the water of the Godavari river was not fully used and much of it flowed into the sea. There were frequent famines in the land. Sir Arthur Cotton, a British official, suggested that if a dam could be built across the river at Dhavaleshwaram, a canal system could be planned and the waters of the river could be used for irrigation. The famines could then be prevented. Thanks to his efforts, in 1845 the construction of a masonry dam across the river was begun. It was completed in two years. Three large canals were also dug. Because of these the Godavari district became one of the most fertile in the country.

Sir Arthur Cotton is remembered with gratitude by the people of south India. He came to India from England when he was a mere lad of seventeen. He was working in the Irrigation Department. When he saw the old dam (the Stone Anicut) which the Chola kings had built across the river Kaveri, he was very impressed. He repaired it and improved it to provide more irrigation facilities for the lands on either side of the Kaveri. He was also responsible for the planning and construction of the other big dam

across the Kaveri which is called Melanai meaning the Upper Anicut.

It is this same Sir Arthur who was responsible for the building of a dam across the Krishna river near Vijayawada. He not only built the dam but also planned a canal system to feed the lakes and tanks which were used for irrigation.

The dam across the Godavari at Dhavaleshwaram has been of great benefit to the people of that area for the past 120 years and more. But it is beginning to show signs of age.

Past Dhavaleshwaram, the Godavari divides into two rivers, the eastern one is called the Gautami Godavari and the one flowing on the west, the Vasishta Godavari. There is also a third distributary in the middle called the Vaishnava Godavari. These three branches are responsible for a delta area being formed just before they flow into the sea. The Gautami Godavari meets the sea at Yenam; the Vasishta Godavari at Narsapur and the Vaishnava Godavari at Nagara.

Delta areas formed where rivers meet the sea are invariably rich and fertile. There is great competition for land in such regions. The Godavari delta once attracted the Dutch, the French and the English. All three peoples settled here and established business houses and companies. The area now known as Yenam where the Gautami Godavari meets the sea still bears the marks of French occupation.

The Godavari is a useful waterway and there is a lot of boat traffic on it. Logs are floated down the river to

distant places instead of being taken by road or in boats. The banks of the Godavari are rich with teak and bamboo forests.



THE KRISHNA

The source of the river Krishna, the second largest of the east-flowing rivers of south India, is also to be found in the Western Ghats in Maharashtra. This source is near Mahabaleshwar at a height of nearly 1400 metres above sea level. It is 145 kilometres south-east of Bombay and 60 kilometres from the Arabian Sea in an area of heavy rainfall.

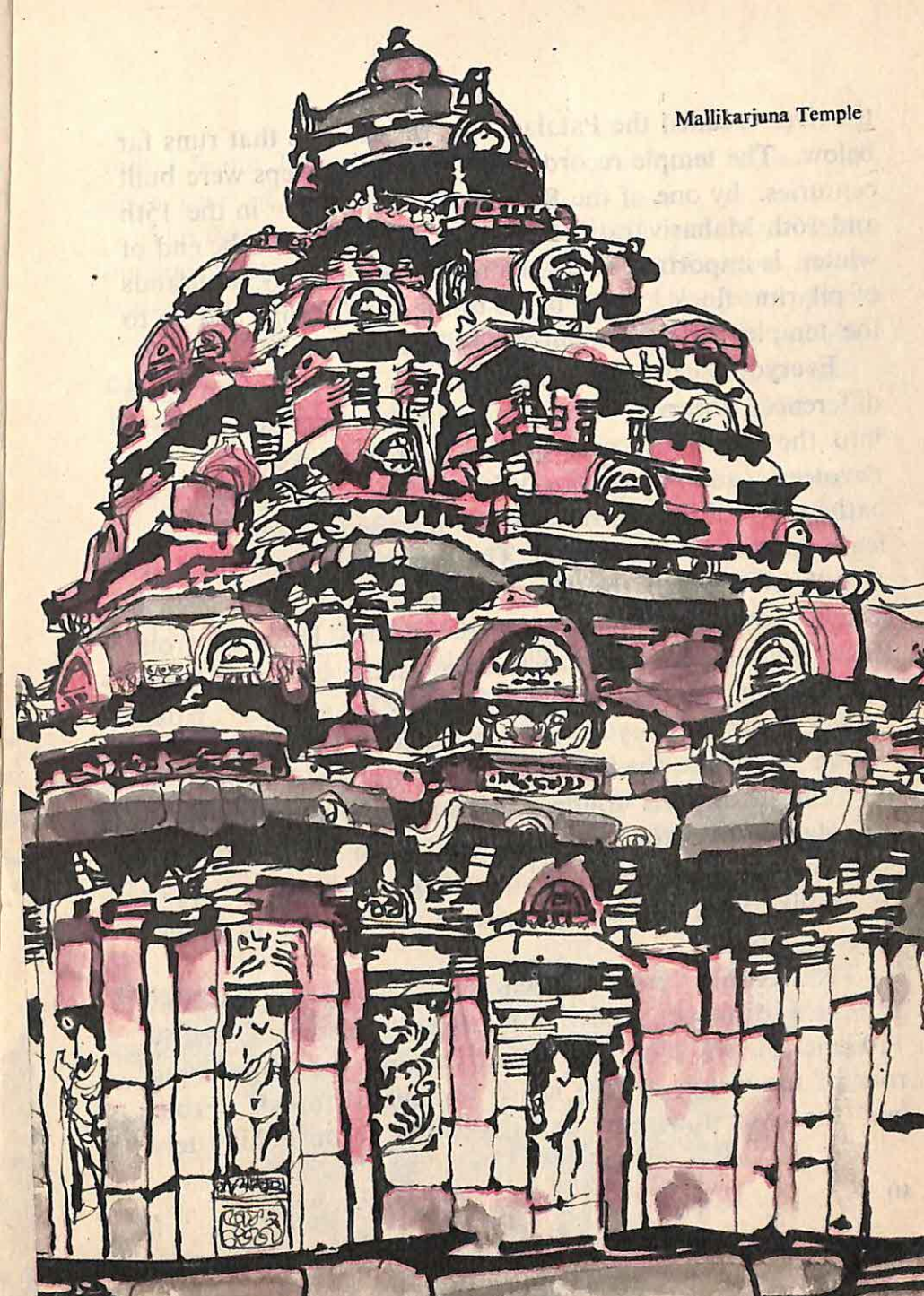
The Krishna, like the Godavari and the Kaveri, starts from a spring which never dries up. The rock from which this spring emerges has been carved in the shape of a cow's head and, therefore, it appears as though the river is coming out of the mouth of the cow-figure. The water falls into a small tank below.

The Krishna and the Godavari are not merely rivers, they are what are called river systems. The Kaveri is a river. It is a lovely, long, graceful, much-loved river, but it is just one river. Tributaries join it from time to time, but these are not much more than large streams. The Krishna and the Godavari, on the other hand, are each many rivers in one. The river Krishna has about 10 main tributaries at least two of which are major rivers with tributaries of their own.

The two main rivers which join the Krishna are the Bhima and the Tungabhadra. Before the river leaves Maharashtra and enters Andhra Pradesh, the Bhima joins it. The Tungabhadra, the most important and the longest of the tributary rivers of the Krishna, joins the main river near Kurnool in Andhra Pradesh. Yet a third tributary of the Krishna is the Musi which starts south of Hyderabad and flows southwards. The river Musi is historically related to the Fort at Golconda which was famous in the 16th and 17th centuries for its diamonds.

Along the banks of the Krishna, as along most Indian rivers, we have a number of pilgrim centres. The most important of these is Srisailam which is situated on a plateau in the Kurnool district of Andhra Pradesh. Below this plateau is a deep valley through which the Krishna flows. Srisailam is thus situated in picturesque surroundings. The ancient temple of Mallikarjuna there is famous for its sculpture, bas-relief and frescoes which depict incidents from the *Ramayana* and the *Mahabharata*. Walking down the mountain side three kilometres east of the temple, you descend a thousand steps before you see the river Krishna flowing below. Here





Mallikarjuna Temple

the river is called the Patalaganga, the Ganges that runs far below. The temple records show that these steps were built centuries. by one of the Reddis of Kondaveedu in the 15th and 16th Mahasivaratri, the festival which marks the end of winter, is important at this temple. On that day thousands of pilgrims flock here to bathe in the Patalaganga and go to the temple for a *darshan* of Mallikarjuna.

Everyone can enter this temple. There are no caste differences observed here. Men and women can go right into the innermost part of the temple to worship. The devotees can fetch water from the Patalaganga and bathe the idol themselves. These may seem unusual privileges to give to devotees. There is a story behind this. A hill tribe called the Chenchus live here. Legend has it that Lord Shiva married a girl named Lakshmi from this tribe and, therefore, to this day, these tribesmen have the freedom of the temple. Ballads have been written on the romantic story of Chenchu Lakshmi.

Adi Shankara, the famous philosopher of the eighth century, in his travels round the country, visited Srisailam and stayed there for some time. He used to bathe in the Patalaganga every day and the songs he sang in praise of Mallikarjuna and his queen-wife are famous in Indian religious poetry.

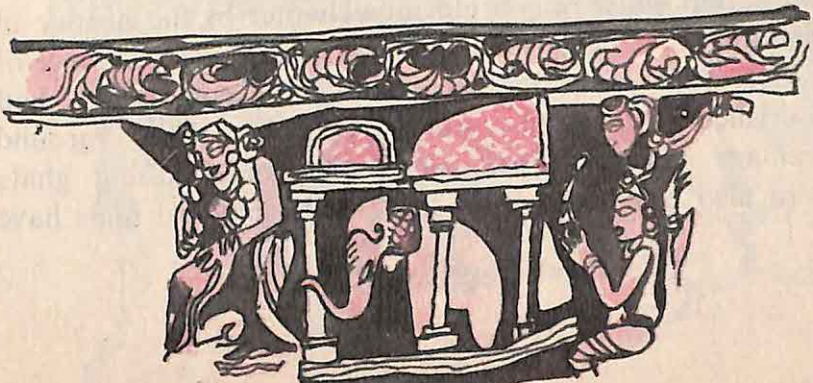
The Krishna comes down the Ghats near Raichur. Within a distance of five kilometres it descends nearly 120 metres. During the rainy season the thundering roar of the waters can be heard for miles around. From here the river flows east to Vijayawada through hilly ter-

rain. Some kilometres south of Vijayawada begins the delta area of the Krishna.

The first dam across the river was built in the year 1855 outside Vijayawada at a place where the Krishna flows between two mountains which are a kilometre apart. This anicut was begun in 1853 and completed in 1855. It is 1140 metres long and its height is six metres from the river-bed. This dam stores up river water which is used to feed the area around through a vast network of canals.

Up to this dam, the Krishna flows rapidly through hills and mountains and, therefore, cannot be used by boats. But once past Vijayawada small boats are used for fishing in the river.

The town of Vijayawada is surrounded by hills. Legend has it that it was in these hills that Arjuna stayed to do penance and worship Lord Shiva. Pleased with his devotion, Lord Shiva gave him a weapon so powerful that he could not be defeated. Modern Vijayawada is an important cultural and commercial centre in Andhra Pradesh. It is also a major railway junction. The soil here is suitable for the cultivation of cotton and paddy.



Buddhism once flourished in this region. There are relics and ruins in towns on the banks of the Krishna which prove this. Amaravati is one such town. The story goes that the Deathless People—people who had obtained the boon of freedom from death—once lived here. That was why the city came to be called Amaravati. Near the present town of Amaravati was situated Dharanikota (Dhanyakatakam), one of the important Buddhist centres. It was the capital of the Satavahana kings. It is now in ruins. The stupa at Amaravati is exactly like the one at Sanchi, only bigger. The Buddhist sculptures here are famous. They are works of great skill and beauty. They remind us of the artistry and workmanship of the Andhra craftsmen who lived here 2000 years ago.

Another famous Buddhist centre, Nagarjunakonda, is situated on the south bank of the Krishna. It is named after Nagarjuna, one of the great poets and teachers of Buddhism. Soon after independence the Government wanted to build a dam here across the Krishna. As the digging progressed, it was discovered that an ancient city lay buried here. The work was stopped for sometime and the Archaeological Department of the Government took over the site. Their excavations in this area brought to light a civilisation which was a glorious chapter in the history of this area. At Nagarjunakonda was discovered evidence of *matts*, stupas, inscriptions and a university which had flourished in the third century A.D. Relics of underground drainage systems, open air burial and bathing ghats were also discovered. All these archaeological finds have

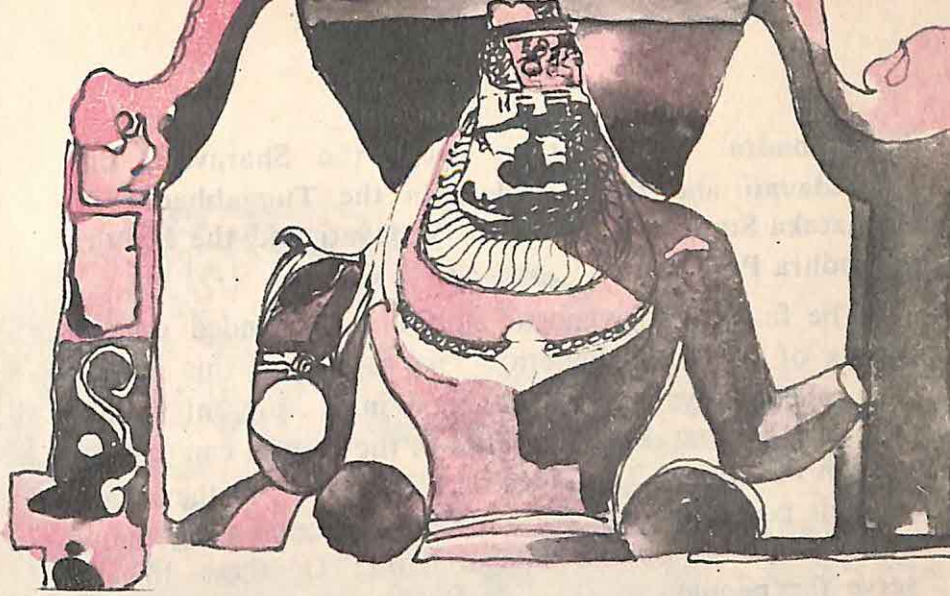


Carving from Amaravati Stupa

been collected and are now displayed in a museum on the top of a hill nearby. There is evidence to show that in those days students from Ceylon, Japan, China, Tibet and Siam came to study at the Nagarjunakonda university. There are many other historical facts which have been unearthed to prove that on the banks of the Krishna there once flourished a highly developed civilisation. The Chinese traveller, Hiuen Tsang, visited Vijayawada, Amaravati and Nagarjunakonda and has written about them.

On the site of the ancient city of Nagarjunakonda a mighty masonry dam across the Krishna river is being constructed. The vast reservoir here is called Nagarjunasagar. The dam is considered the highest and longest in India. The hydro-electric project planned here is expected to yield an additional 12 lakh tons of paddy and 50,000 tons of sugar and produce through its two units of 50 megawatts each of electric power. The income from all this is expected to be more than a hundred crore rupees every year.

Sixty-five kilometres from Vijayawada the Krishna splits into two rivers. The southern branch of the river further divides into many smaller streams and after a few kilometres meets the sea at Masulipatam. In this delta area is an island formation called Deevu. In the old days, the river water had to be pumped to this island for irrigation but now a small dam has been built here so that the water from the river is directly available for cultivation.



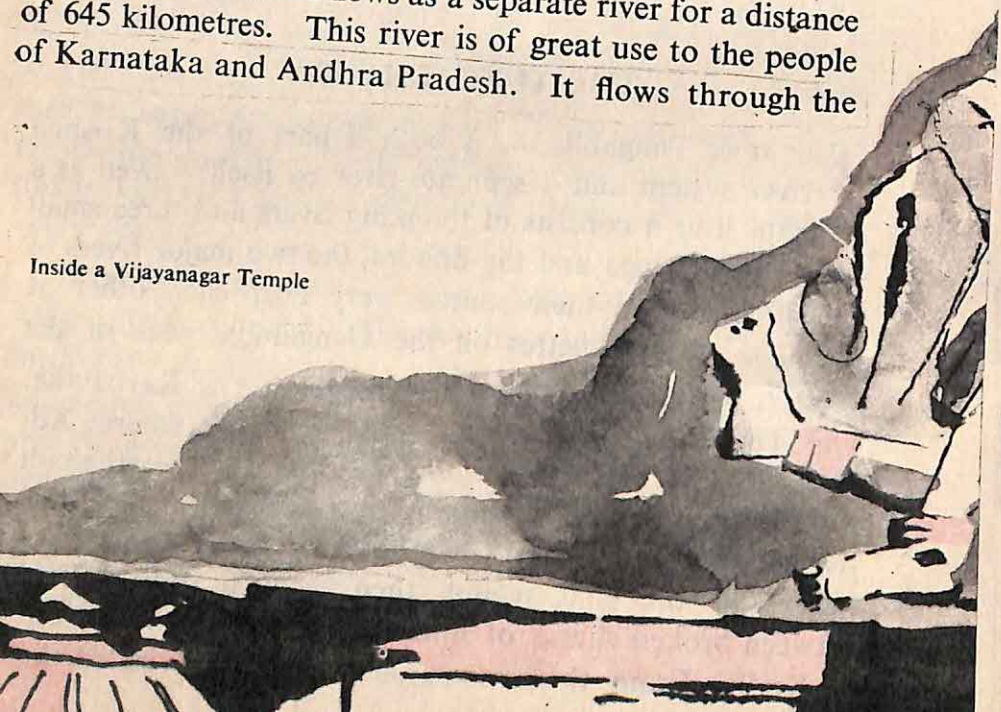
THE TUNGABHADRA

The river Tungabhadra is both a part of the Krishna river system and a separate river by itself. Even as a separate river it consists of three big rivers and three small ones. The Tunga and the Bhadra, the two major rivers of this group, have their sources very near each other at a height of 1200 metres on the Gangamula peak of the Western Ghats in the Chikmagalur district of Karnataka. The Tunga flows north-east past Sringeri where Adi Shankara established a *matt*, and then past Teerthahalli with its picturesque mountain caves on either side. The river flows through forests, bamboo groves and coffee plantations in the ghat region, then through deep valleys between broken chains of hills before it joins the Bhadra at Kudli. From there onwards the river is called the

Tungabhadra. Three other rivers, the Sharavati, the Kumudavati and the Varada join the Tungabhadra in Karnataka State; two others the Vedavati and the Handri in Andhra Pradesh.

The famous Vijayanagar empire was founded on the banks of the Tungabhadra. The capital of this empire was called Vijayanagaram; it stood in the present Bellary district of Karnataka. The relics of the empire can still be seen in this area. The kings of Vijayanagar, at the height of their power in the 14th and 15th centuries, built many stone dams across the Tungabhadra. Of these 10 still serve the people.

The Tungabhadra flows as a separate river for a distance of 645 kilometres. This river is of great use to the people of Karnataka and Andhra Pradesh. It flows through the



Inside a Vijayanagar Temple



districts of Rayalaseema and Raichur where famines and droughts are frequent. It was to bring relief to these areas that the Tungabhadra project was planned. The project includes a dam across the river at Mallapuram near Hospet. The sluice gates for this dam were designed and produced by Indian engineers in a factory set up for the purpose. The water stored by the dam is used both for irrigation and for producing electric power. The waters of the Tungabhadra are used for irrigation in other areas of Andhra Pradesh also. Canals have been built to carry the water to tanks and fields far from the river. The Cuddapah-Kurnool canal is one of the most important of these. It branches off from the Tungabhadra just before it joins the Krishna.

The water of the Tungabhadra is considered very sweet. Hence the proverb: *Ganga snanam Tunga panam*—Bathe in the Ganges and drink the water of the Tunga.



THE NARMADA

THE Narmada is really in central India. It is born in the eastern part of the central highlands and it flows through Madhya Pradesh and along the borders of Maharashtra and Gujarat. But it is generally taken as the dividing line between south India and north India. Geographically it belongs more to peninsular India than to the north. The Narmada is the larger of the two major west-flowing rivers (the other is the Tapti) born in the central highlands. It had the distinction of being the southern frontier of the empire of Harshavardhana and the northern frontier of the kingdom of the Chalukyas. According to the *Mahabharata* the Narmada formed the southern boundary of the ancient kingdom of Avanti.

Born in the Amarkantak hills of the Maikala range of the central highlands, the Narmada is one of those rivers not yet dammed, tamed and controlled by man. It flows between high mountain ranges, through thick jungles and narrow gorges. It takes sharp turns in deep valleys and has many waterfalls down its length. In one place its blue waters cut through marble rocks, while at another through massive red and yellow sandstone hills. After a journey of 1312 kilometres, this free-moving river at last empties

itself in the Gulf of Cambay near Broach in Gujarat.

It produces a spectacular waterfall by plunging 25 metres down a cliff at Kapiladhara. After running gaily through the rough country between the Mandla mountains, it again tumbles off a hilltop Dhuandhar near Jabalpur. Then, as if tired of tumbling and falling, it runs smoothly through a five-kilometre stretch of marble mountains. Then comes a 320-kilometre long passage through the valley between the Vindhya and Satpura range of mountains. This valley south of Jabalpur and Handiya is fertile because of the silt the river feeds it with. This is followed by more hilly country with thick jungles on either side, once the hiding place and hunting ground of dacoits and *pindaris*. Finally, the Narmada enters the plains of Gujarat. Here the river is deep enough for boats to ply.

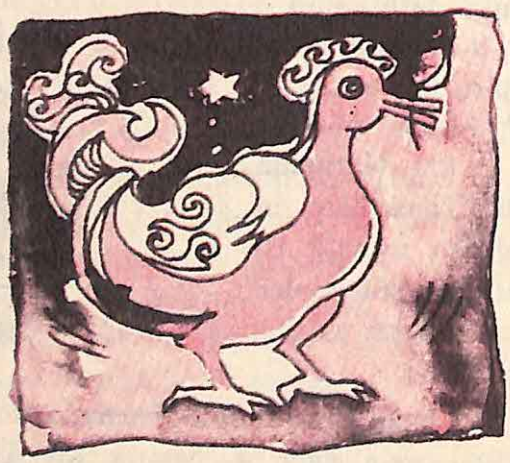
According to Indian mythology, most rivers are of divine origin. Because of its divine origins the Narmada is considered a sacred river. Every year devotees perform a *pradakshana* of the river. They walk right round it. Starting near the mouth of the river at Broach, they walk along one bank to its source in Amarkantak and having offered worship there, walk down the other bank back to the mouth of the river. And, as in the case of most Indian rivers, there are pilgrim centres all along the course of the river—Bheraghat, Omkara, Shukla, Theertham and Broach itself. Particular mention must also be made of Mandhata, an island town in the Narmada in which is a

famous Omkarnath temple; Maheshwar, the capital of an ancient empire and a city of temples and palaces; and the little island in the Narmada near Shukla Theertham in which Kabirdas is said to have lived as a hermit under a banyan tree which to this day is called Kabir.



The important tributaries of the Narmada are the Banjar which joins the main river at Mandla; the Sher and the Shakkar which join it at Narsinghpur; the Tawa which joins it near Hoshangabad; the Chhotitawa which joins it near Khandwa; and the Ganjal which joins it in Hoshangabad district. There is only one tributary from the north, the Hiran, which joins the Narmada at Jabalpur.

An interesting feature of the Narmada is that its breadth keeps changing along its course. Another interesting feature is that up to a distance of 88 kilometres inland from its mouth, the river is affected by ebbs and tides. Because of these features and also because of the hilly terrain through which the river passes, the waters of the Narmada are not fully used. And yet, even without much effort at development, boats do ply on the river for about a hundred kilometres from its mouth and the water of this untamed, dancing river irrigates an area of more than 90,000 square kilometres.



SOME SMALLER RIVERS

The rivers of peninsular India are of two kinds—'inland' i.e. those situated in the interior and 'coastal' i.e. those located near the coast. The 'coastal' rivers are small streams —there are almost 600 of them—which run all along the west coast from Saurashtra in Gujarat to Kanyakumari at the southernmost tip of India, and meet the Arabian Sea. Some streams belonging to the delta areas on the east coast also belong to this category. The 'inland' rivers can be counted on the fingers of one's hand. Some of them like the Kaveri, the Godavari and the Krishna rise in the Western Ghats and flow towards the Bay of Bengal, others like the Narmada and the Tapti rise in the central highlands and flow west towards the Arabian Sea. The rivers which flow west generally flow between mountain ridges and no deltas form at the mouth of these rivers. Large delta formations are a characteristic feature of the east-

flowing rivers. The eastern coastal belt of India has been made fertile by these river deltas.

The Pennars—North and South

Born in the Nandidurga mountains in Karnataka, the Pennar (also called Pinakini) has two branches. The North Pennar, 560 kilometres long, flows through the Cuddapah, Anantapur and Nellore districts of Andhra Pradesh and meets the Bay of Bengal south of Nellore town. The 620-kilometre long South Pennar flows through the Bangalore district in Karnataka and later through the Salem and South Arcot districts in Tamil Nadu to meet the Bay north of Cuddalore.

The notable feature of the Pennar is its tendency to flood suddenly and without warning. A shallow, stagnant stream becomes a torrential flood. There is a saying which goes: "Before butter melts, the Pennar floods!" And this happens in spite of the fact that there is water in the Pennar —in either branch—for just about two months in the year. In 1885 a dam was built across the North Pennar near Nellore and this was later improved by our old friend Sir Arthur Cotton. Since then canals have been dug to make the waters of the river available for irrigation.

One of the reasons why the South Pennar has so little water in it during its course through Tamil Nadu is that so many dams have been built on its 104-kilometre course through Karnataka that very little water reaches Tamil Nadu. But, fortunately a few tributaries join it in Tamil Nadu and improve its usefulness for irrigation.

The Palar

Palar in Tamil means the river of milk. But the Palar is a poor, dry river. The interesting thing about it, however, is that wherever one digs in the river-bed, one finds a fresh water spring. The river is utilized much more in Karnataka where it is born, than in Tamil Nadu through which it flows later. Mango, coconut and casuarina trees are a distinctive feature of the landscape of its banks.

The Palar has also played a role in history. Its waters were used to fill the moat of a 16th century fort built in Vellore by two Reddi chieftains, Bommi Reddi and Thimma Reddi. Chaturangapatnam at which the Palar meets the sea once saw Dutch occupation. The ruins of a fort there bear witness to this chapter of our history. In those days this little town was famous for its muslin trade. Today it is well-known for its fishing trade.

The Sharavati

The Sharavati is born on a high plateau in the Western Ghats. The famous Jog Falls is on this river. The river spills over the edge of a sheer cliff down four successive platforms, the final drop being 253 metres. This last, known as the Jog or Gersoppa Falls is surely one of the most beautiful waterfalls in India. The four falls on the cliff platform are called Raja, Roarer, Rocket and Rani. Rest houses and guest houses at which people stay while on holiday have been constructed across the valley of the Falls. It is not unusual to see groups of visitors sitting on the verandah of a rest house or on its green lawn, gazing

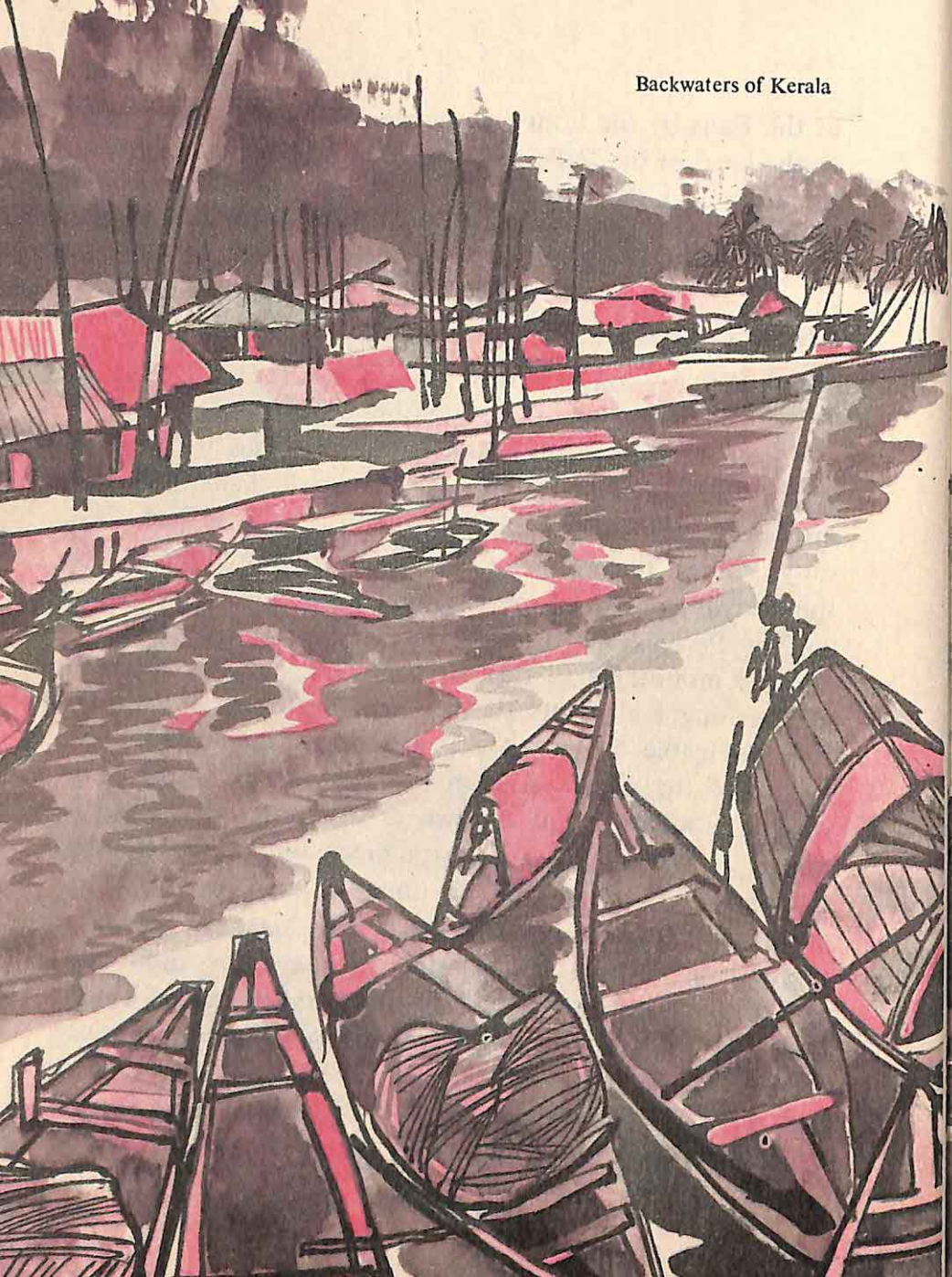
at the Falls by the hour. It is possible to climb very near to the head of the Falls and, standing by the side of one of them, gaze at the crystal clear waters of the Jog tumbling down the mountain face, sending huge fountains of spray which reach half way up the mountain.

Rivers of Kerala

Kerala is the southernmost State of the Indian Union. In this small State there are more than 40 rivers, their tributaries and the branches of those tributaries. The place is criss-crossed with waterways. Most of them, however, are hardly more than streams; some of them, in fact, flow only during the rainy season. The Bharathapuzha and the Periyar are two of the largest rivers in the State.

The Periyar has its source in the dense forests of the Sivagiri mountains in the Western Ghats. It is 225 kilometres long and meets the Arabian Sea north of Cochin. It is navigable for about 160 kilometres inland from the mouth of the river. A dam has been built in the Tiruvankur mountains and the waters of the river have been turned to flow eastward through a tunnel cut in the mountain. The length of this tunnel is 1766 metres. For the year 1895 when it was built this was an immense engineering feat. After passing through this mountain tunnel the river flows through the Madurai district of Tamil Nadu. Here it joins the river Vaigai and helps to enrich the land in the Madurai district. Before this tunnel was built most of the waters of the Periyar were wasted.

The Periyar wildlife sanctuary is situated on the banks



Backwaters of Kerala





Periyar Wildlife Sanctuary

of the reservoir created by the building of the dam near the Trivankur mountains. This is one of the most famous sanctuaries in the whole of India. Tourists and visitors come not only from all over the country but from all over the world to see the animals here. They can go in motor boats and watch herds of elephants, wild buffaloes, tigers and bears as they come down to the lake to bathe and drink. The countryside here has been carefully preserved to provide a natural living place for the wild animals of these parts.



There is another river called the Pampa in Kerala. Many streams that start in the mountains in the Kollam district join to form this river. It is only 144 kilometres long. Kuttanad which is called the paddy granary of Kerala is irrigated by the Pampa. This river is also famous for its annual boat race during the Onam festival. Each of the long, snaky boats used in the races can carry more than a hundred people. The competitors use paddles instead of oars. The whole community living on the banks participates in this festive boat race which represents Kerala life and tradition at their best.

Three Rivers of Tamil Nadu

In Tamil Nadu, Madurai is the second biggest city. It was once the capital of the Pandya kingdom and has been for centuries the seat of Tamil culture and literature. In it is the famous Meenakshi temple with its four huge temple towers or *gopurams*. Through this city flows the Vaigai, a short river—only 260 kilometres long—originating in the Varsha valley adjoining the Cardamom Hills of the Western Ghats and meeting the sea at the Palk Straits. The river is in spate during the rainy season and dries up for the last three months of the year. It is only because the river Periyar from Kerala joins this river that it is able to be of some benefit to the people of Tamil Nadu.

In the famous Tamil classic, *Silappadhikaram*, the poet Ilango describes the flowing waters of the Vaigai with lyrical beauty. He compares the Vaigai to a young woman; the red flowers on the sandbank in the middle of the river

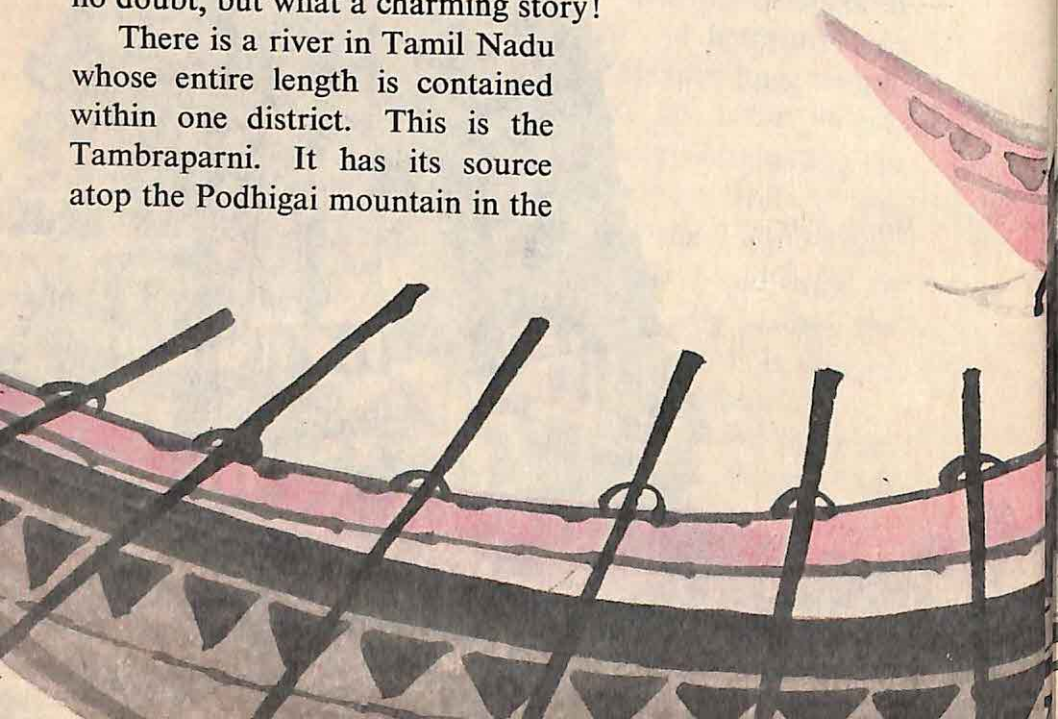


Meenakshi Temple

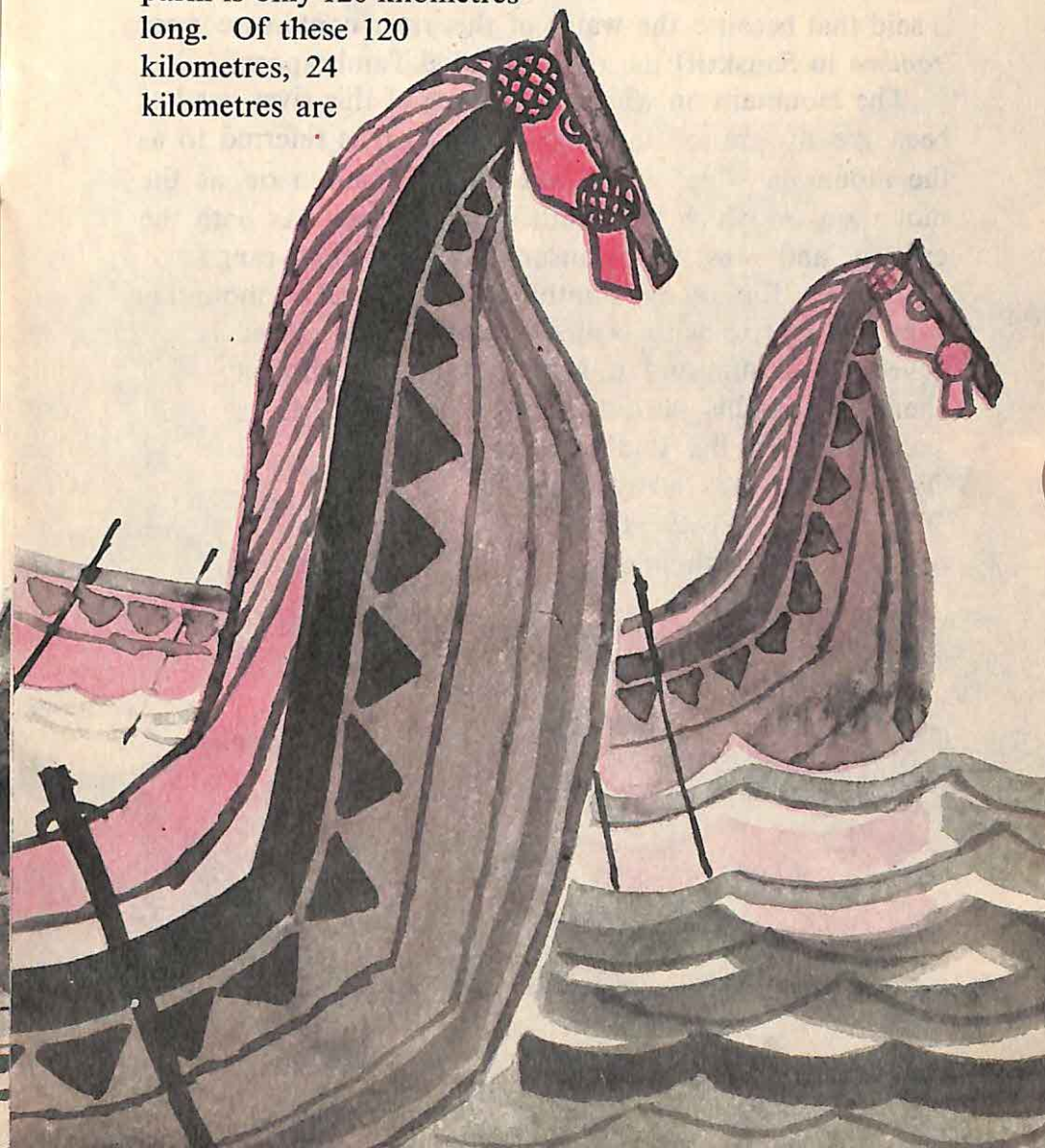
are her lips, the white jasmine flowers floating in the water her eyes, the black sandy banks lapped by the waters of the river her tresses, and so on. In those ancient times the boats on the Vaigai were of beautiful workmanship with the prow carved in the shape of the head of a horse, elephant or camel.

There was a time when the Saivites and the Jains fought for supremacy in the Tamil country. In those days people made use of the waters of the Vaigai to establish the superiority of one religion over the other. Each party used to inscribe the important tenets and beliefs of its religion on palm leaves and throw them into the river. The leaves containing the tenets of the superior religion were supposed to float upstream against the current of the river! A story no doubt, but what a charming story!

There is a river in Tamil Nadu whose entire length is contained within one district. This is the Tambraparni. It has its source atop the Podhigai mountain in the

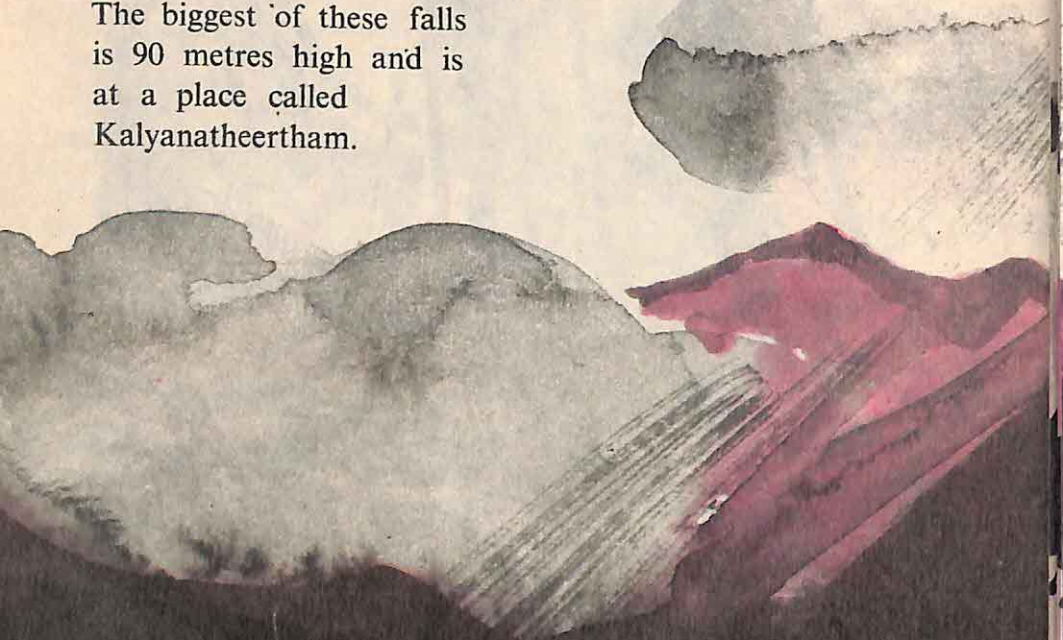


Western Ghats at a height of 1838 metres. The Tambraparni is only 120 kilometres long. Of these 120 kilometres, 24 kilometres are



down mountain slopes. The rest of the length of the river is used extensively for irrigation. The Tirunelvelli district which contains this river is very fertile and prosperous. It is said that because the water of this river contains copper (*tambra* in Sanskrit) the river is called Tambraparni.

The mountain on which the source of this river lies has been greatly praised in Tamil poetry. It is referred to as the mountain which is crowned by the moon or as the mountain on which the south wind dances. As both the eastern and western monsoons strike this range of mountains, for many months of the year the mountain tops are covered with layers of clouds. The place is lovely in autumn and it is very pleasant to holiday there during this season. In the course of its passage down the Podhigai mountain, the Tambraparni has many waterfalls.. The biggest of these falls is 90 metres high and is at a place called Kalyanatheertham.





National Book Trust, India
REVISED PRICE Rs.5.00

